## REMARKS/ARGUMENTS

The specification and claims are amended to change the ink transfer amount to units of $ml/m^2$. This is an obvious correction for an obvious error. Clearly even an amount of only 5 ml of ink, applied to a $mm^2$ area, cannot produce an image -- it will totally saturate or flood such a small area. In addition, support for the change can be found in the units of ink application used in the cited art. Finally, there is support in the specification at page 19, line 15, where the correct units are used.

The ABSTRACT is also presented as a single paragraph to avoid formal issues.

The claims are rejected as obvious over either Matsushima or Yamamoto et al, each in view of Ohya et al. Ohya is cited with respect to ink transfer rate and contact time.

Concerning the ink transfer rate and contact time, as recited in claim 5, in the step of applying ultraviolet rays onto the ink droplets formed on the base material, the application of ultraviolet rays is started within a contact time in which an ink transfer rate of the ink of the ink droplets by Bristow method is an amount of 5 $ml/m^2$ or more and less than 20

$ml/m^2$.

In other words, in the present invention, the timing to apply ultraviolet rays onto ink droplets formed on a base material is determined based on an ink transfer amount of the ink of the ink droplets by Bristow method.

If the application of ultraviolet rays is started before the contact time that an ink transfer amount of the ink of the ink droplets by Bristow method is 5 $ml/m^2$, the ink of the ink droplets is not absorbed sufficiently in the base material with the result that the ink dot size may be insufficient and the ink may be hardened insufficiently, see page 6 lines 18-19 of the present specification.

On the other hand, if the application of ultraviolet rays is started after the contact time that an ink transfer amount of the ink of the ink droplets by Bristow method is 20 $ml/m^2$, the ink of the ink droplets is absorbed excessively in the base material with the result that the color material of the ink may not be held on the surface of the base material. As a result, an image density level may be insufficient, see page 6 lines 4-6.

Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over Matsushima in view of Ohya.

The Examiner states that Matsushima discloses at paragraphs [0024]-[0025] that UV rays are applied within a contact time.

However, in the above paragraphs, Matsushima merely discloses UV irradiation amount of 100 $mJ/cm^2$, and teach nothing about the contact time.

As noted above, to supplement the above deficiency of Matsushima, the Examiner relies on Ohya and states that Ohya teaches 10 to 30 $ml/m^2$ for a contact time of 40 milliseconds ([0036]&[0040]).

However, the teaching in Ohya may not be applicable to the present invention. Ohya discloses an ink-jet recording medium having an ink absorbing layer. Since the ink of Ohya is quite different from the UV-hardenable ink-jet ink of the present invention, there is no motivation to refer to Ohya in order to solve a problem related to the UV-hardenable ink-jet ink.

In context, Ohya teaches a technique to solve the problems related to a layer constituted by thermoplastic organic polymer particles. More specifically, Ohya teaches to make the ink transfer amount of the ink recording material comprising the above layer 10 to 30 $ml/m^2$ for a contact time of 40 milliseconds

by Bristow method.

Ohya teaches that, by making the ink transfer amount of the ink recording material 10 ml/$m^2$ or more, since the ink absorbing ability the ink recording material becomes good, the contamination of the fixing device does not occur even when the fixing treatment is applied just after the printing, see column [0013]. On the other hand, by making the ink transfer amount of the ink recording material 30 ml/$m^2$ or less, image has a high glossines and high water-proof ability.

These effects of Ohya are quite different from the above-mentioned effects and objects of the present invention. Ohya is solving a different problem in a different, non-analogous context.

It is therefore submitted that the effects of the present invention would not have been obvious and unexpected from the teaching of Ohya.

Furthermore, by making the ink transfer amount of the ink recording material 10 ml/$m^2$ or more, Ohya teaches that the fixing operation can be conducted just after the printing. Therefore, Ohya teaches away from the requirement of the present invention that the application of ultraviolet rays is started after the contact time that an ink transfer amount of the ink of

the ink droplets by Bristow method is 5 ml/$m^2$, after the printing.

Accordingly, the present invention would not have been obvious even if taking Matsushima and Ohya in combination.

As to the combination of Yamamoto with Ohya to reject Claims 1-4, the same reasoning applies.

As the Examiner admits, as with Matsushima, Yamamoto teaches nothing about an ink transfer amount by Bristow method.

Further, Yamamoto teaches to irradiate ultraviolet rays immediately following the ejection without a time elapse, see paragraph [0053]. Therefore, as is taught by Ohya, Yamamoto teaches away from the technique of the present invention that the application of ultraviolet rays is started after the contact time that an ink transfer amount of the ink of the ink droplets by Bristow method is 5 ml/$m^2$, after the printing.

Accordingly, the present invention would not have been obvious even if taking Yamamoto and Ohya in combination.

In view of the above, the rejections are avoided.

Allowance of the application is therefore respectfully requested.

Respectfully submitted,

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